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in another predefined region, the oligonucleotide molecules covalently attached to said surface, and said predefined regions each occupying an area of less than about 0.01 cm<sup>2</sup>.

109. (Amended) The substrate recited in claims 105, 107, or 108 wherein said groups of oligonucleotides are at least 50% pure within said predefined regions.

- 10. (Amended) A substrate with—a surface comprising 10<sup>3</sup> or more groups of oligonucleotides with different, known sequences covalently attached to the surface in predefined regions.
- 111. (Amended) The substrate as recited in claim 110 wherein said substrate comprises 10<sup>4</sup> or more different groups of oligonucleotides [molecules] with known sequences covalently coupled to predefined regions of said substrate.
- 112. (Amended) The substrate as recited in claim 110 wherein said substrate comprises 10<sup>5</sup> or more different groups of oligonucleotides with known sequences in predefined regions.
- 113. (Amended) The substrate as recited in claim 110 wherein said substrate comprises 10<sup>6</sup> or more different groups of oligonucleotides with known sequences in predefined regions.
- 114. (Amended) The substrate as recited in claim 110 wherein said groups of oligonucleotides are at least 50% pure within said predefined regions.
- (Amended) The substrate as recited in claim 110 wherein the groups of oligonucleotides are attached to the surface by a linker.

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